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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,309

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EXAMINER

PERUNGAVOOR, SATHYANARAYA V

ART UNIT

PAPER NUMBER

2624

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/817,309	<b>Applicant(s)</b> LEI ET AL.	
	<b>Examiner</b> SATH V. PERUNGA VOOR	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

[1] A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 3, 2008 has been entered.

### ***Response to Arguments/Amendments***

[2] Presented arguments have been fully considered, but are rendered moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

[3] Claims 1-23 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions<sup>2</sup> indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material)

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. The claims recite process steps without being tied to an apparatus/system, such as a computer or processor.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[4] Claims 1, 2, 9-12, 14-17, 20-25, 32-35, 37-40 and 43-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Urano et al. (“Urano”) [US 5,767,898].

Regarding claim 1, Urano meets the claim limitations, as follows:

A method for receiving three-dimensional (3D) video [fig. 1], the method comprising: accepting a bitstream with two interlaced fields (*i.e.* 1 and 2), both encoded in a single first video frame (*i.e.* 3) [fig. 1]; decoding the first frame top field (*i.e.* 1A) from the first video frame (*i.e.* 7) [fig. 1]; decoding the first frame bottom field (*i.e.* 2A) from the first video frame (*i.e.* 7) [fig. 1]; and, presenting the decoded top and bottom fields as a 3D frame image (*i.e.* 1A and 2A output) [fig. 1].

Regarding claim 2, Urano meets the claim limitations, as follows:

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The method of claim 1 wherein accepting a bitstream with the first video frame encoded with two interlaced fields includes accepting the bitstream in a standard selected from the group including Motion Pictures Expert Group-2 (MPEG2), MPEG4, and ITU-T H.264 standards [col. 5, ll. 5-8].

Regarding claim 9, Urano meets the claim limitations, as follows:

The method of claim 1 further comprising: prior to accepting the first video frame, accepting a first encoded video frame (*i.e.* 132) [fig. 8]; deriving a predictive first frame top field (*i.e.* output of 114) [fig. 8]; deriving a predictive first frame bottom field (*i.e.* output of 114) [fig. 8]; wherein decoding the first video frame top field includes decoding the first video frame top field in response to the predictive first frame top field [col. 8, ll. 20-35]; and, wherein decoding a first video frame bottom field includes decoding the first video frame bottom field in response to the predictive first frame bottom field [col. 8, ll. 20-35].

Regarding claims 10-12, all claimed limitations are set forth and rejected as per discussion for claim 9.

Regarding claim 14, Urano meets the claim limitations, as follows:

A method for encoding three-dimensional (3D) video [fig. 1], the method comprising: accepting a 3D video image (*i.e.* 1 and 2), including a first view of the image (*i.e.* 1) and a second view of the image (*i.e.* 2) [fig. 1]; encoding the first view (*i.e.* 1) as a top field in a single first video frame (*i.e.* 3) [fig. 1]; encoding the second view

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(*i.e.* 2) as a bottom field in a single first video frame (*i.e.* 3) [fig. 1]; and, transmitting a first video frame bitstream (*i.e.* 4), having the top field interlaced with the bottom field in the single first video frame (*i.e.* 7), into a channel [fig. 1].

Regarding claim 15, Urano meets the claim limitations, as follows:

The method of claim 14 wherein transmitting the first video frame bitstream having the top field interlaced with the bottom field includes transmitting the bitstream in a standard selected from the group including Motion Pictures Expert Group-2 (MPEG2), MPEG4, and ITU-T H.264 standards [col. 5, ll. 5-8].

Regarding claim 16, Urano meets the claim limitations, as follows:

The method of claim 14 wherein accepting a current 3D video image, including a first view of the image and a second, 3D, view of the image includes accepting a first and second view of a stereo image [col. 4, ll. 55-67].

Regarding claim 17, Urano meets the claim limitations, as follows:

The method of claim 14 further comprising: transmitting a supplemental enhancement information (SEI) 3D option message (*i.e.* 3D sequence coding information) with the first video frame to trigger optional single field two-dimensional (2D) decoding [fig. 8].

Regarding claims 20-23, all claimed limitations are set forth and rejected as per discussion for claim 9.

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Regarding claims 24, 25 and 32-35, all claimed limitations are set forth and rejected as per discussion for claims 1, 2 and 9-12.

Regarding claims 37-40, all claimed limitations are set forth and rejected as per discussion for claims 14-17.

Regarding claims 43-46, all claimed limitations are set forth and rejected as per discussion for claims 20-23.

Regarding claim 47, all claimed limitations are set forth and rejected as per discussion for claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[5] Claims 3-8, 13, 18, 19, 26-31, 36, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urano et al. ("Urano") [US 5,767,898] in view Swift et al. ("Swift") [US 2002/0122585 A1].

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Regarding claim 3, Urano meets the claim limitations as set forth in claim 1.

Urano does not explicitly disclose the following claim limitations (emphasis added):

The method of claim 1 wherein presenting the decoded top and bottom fields as a 3D frame image includes presenting the decoded top and bottom fields as a stereo-view image.

However, in the same field of endeavor Swift discloses the deficient claim limitations, as follows:

Presenting the decoded top and bottom fields as a stereo-view image [*para. 0028*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Urano with Swift in order to display 3D data, the motivation being to enable viewing [*para. 0001*].

Regarding claim 4, Urano meets the claim limitations as set forth in claim 1 and further discloses:

The method of claim 1 further comprising: receiving a supplemental enhancement information (SEI) 3D content message (*i.e. 3D sequence coding information*) with the current video frame [*fig. 8*].

Urano does not explicitly disclose the following claim limitations:

analyzing display capabilities; if non-3D display capabilities are detected, decoding only one of the first video frame interlaced fields; and, presenting a two-dimensional (2D) frame image.

However, in the same field of endeavor Swift discloses the deficient claim limitations, as follows:



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analyzing display capabilities (*i.e. display is monoscopic*); if non-3D display capabilities are detected (*i.e. display is not stereoscopic*), decoding only one of the first video frame interlaced fields (*i.e. left or right image*); and, presenting a two-dimensional (2D) frame image (*i.e. output*) [para. 0045 and 0046].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Urano with Swift in order to display 3D data, the motivation being to enable viewing [para. 0001].

Regarding claim 5, Urano meets the claim limitations as set forth in claim 1.

Urano does not explicitly disclose the following claim limitations:

The method of claim 1 further comprising: analyzing display capabilities; if non-3D display capabilities are detected, decoding only one of the first video frame interlaced fields; and, presenting a 2D frame image.

However, in the same field of endeavor Swift discloses the deficient claim limitations, as follows:

analyzing display capabilities (*i.e. display is monoscopic*); if non-3D display capabilities are detected (*i.e. display is not stereoscopic*), decoding only one of the first video frame interlaced fields (*i.e. left or right image*); and, presenting a two-dimensional (2D) frame image (*i.e. output*) [para. 0045 and 0046].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Urano with Swift in order to display 3D data, the motivation being to enable viewing [para. 0001].

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Regarding claims 6 and 7, Urano meets the claim limitations as set forth in claim 1.

Urano does not explicitly disclose the following claim limitations:

6. The method of claim 1 further comprising: accepting 2D selection commands; decoding only one of the first video frame interlaced fields in response to the 2D selection commands; and, presenting a 2D frame image.

7. The method of claim 6 wherein accepting 2D selection commands includes accepting 2D selection commands in response to a trigger selected from the group including receiving an SEI message, an analysis of display capabilities, manual selection, and receiver system configuration.

However, in the same field of endeavor Swift discloses the deficient claim limitations, as follows:

6. The method of claim 1 further comprising: accepting 2D selection commands (*i.e. user selection*); decoding only one of the first video frame interlaced fields (*i.e. left or right image*) in response to the 2D selection commands; and, presenting a 2D frame image (*i.e. output*) [para. 0045 and 0046].

7. The method of claim 6 wherein accepting 2D selection commands includes accepting 2D selection commands in response to a trigger selected from the group including receiving an SEI message, an analysis of display capabilities, manual selection (*i.e. user select*), and receiver system configuration [para. 0045 and 0046].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Urano with Swift in order to display 3D data, the motivation being to enable viewing [para. 0001].

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Regarding claims 8, 13, 18, 19, 41 and 42 all claimed limitations are set forth and rejected as per discussion for claims 6 and 7.

Regarding claims 26-31 and 36, all claimed limitations are set forth and rejected as per discussion for claims 3-8 and 13.

### ***Contact Information***

[6] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Matthew C. Bella whose telephone number is (571) 272-7778, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Dated: March 3, 2009

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